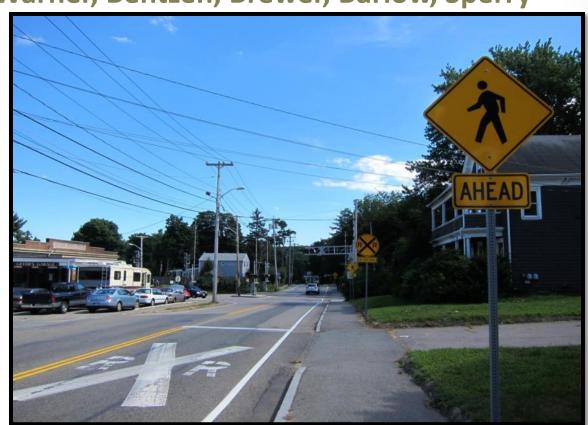
TCRP Report 175: Guidebook on Pedestrian Crossings of Public Transit Rail Services

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Overview

- Project sponsored by the Transit Cooperative Research Program
- Research objective = develop Guidebook
- Several resources available for rail, focus of this project = pedestrians
- Guidebook is in publication queue anticipated very soon



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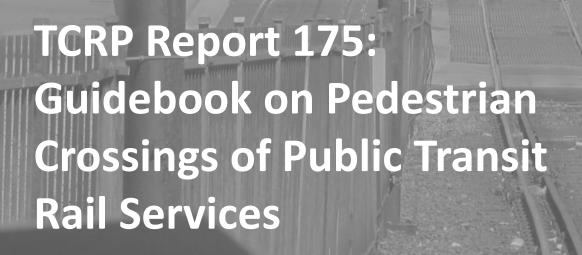
- 1. Introduction
- 2. Rail Transit Services
- 3. Pedestrian Safety
- 4. NEPA-Related Issues
- 5. Accessibility/ADA Considerations
- 6. Treatment Selection
- 7. Treatment Considerations
- 8. Pedestrian Treatments (34 treatments)
- 9. Case Studies (4 case studies)



Pedestrian Treatment Layout

- Sections:
 - Description
 - Applications
 - Implementation
 - Benefits
 - Cost
- Photos or Diagrams





Treatments

Channelization

Guide
 pedestrians to
 appropriate
 crossing locations



Barriers

- General
- Offset pedestrian crossing
- Maze fencing
- Pedestrian fencing
- Between-car barriers at transit platform edges
- Temporary







Design of the Crossing

Clearly define pedestrian crossing

Smooth and level surface

Sight distance improvements

Stop and terminal

- Illumination
- Flangeway filler
- Pedestrian refuge
- Sidewalk relocation
- On-road bollards



sidewalk

additional crossing

old sidewalk



Signs

- Passive signs
- Unique warning messages
- Signs for enforcement
- Blank-out warning









Signals

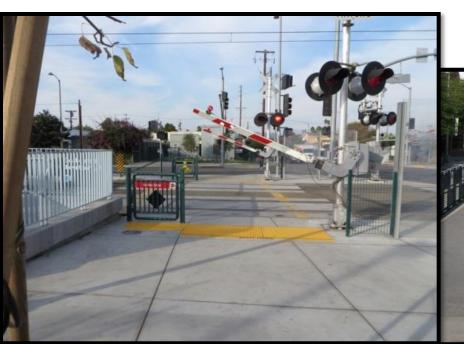
- Timing considerations near railroad crossings
- Flashing light signals assembly
- In-pavement flashing lights







- Pedestrian stop line
- Detectable warnings
- Word or symbol
- Dynamic envelope markings

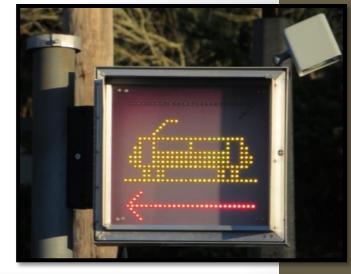


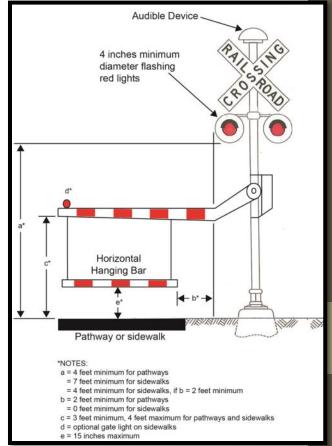


Infrastructure

- Audible crossing warning devices
- Pedestrian automatic gates
- Pedestrian automatic gate with horizontal hanging bar
- Pedestrian swing gates

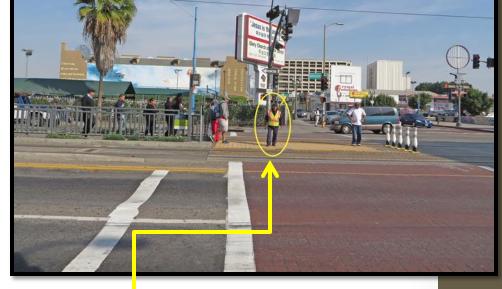






Operations

- Required stop
- Reduced speed
- Rail safety ambassador program



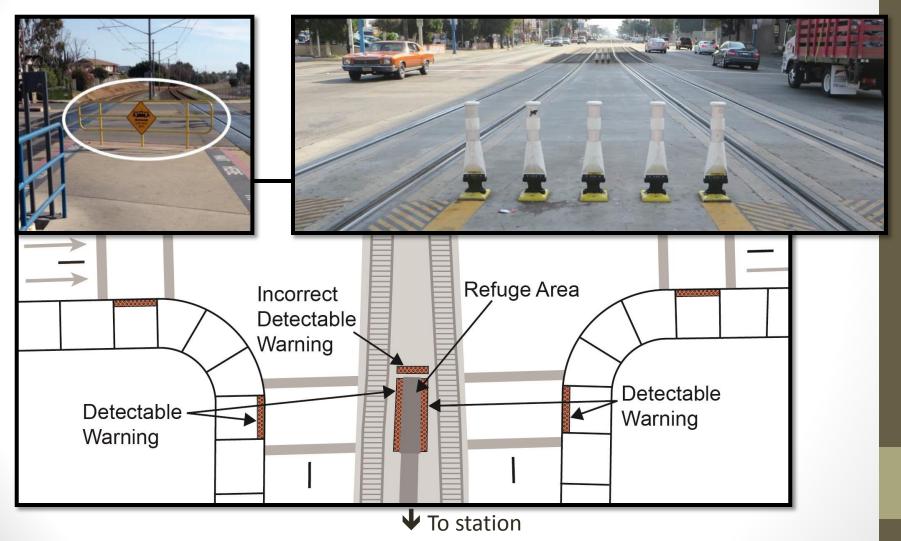






Case Studies

Example - Detectable Warning







Discussion